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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,027	01/16/2004	Alain Fournier	034299-561	8516

7590 09/14/2005

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EXAMINER

VO, HAI

ART UNIT PAPER NUMBER

1771

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

T.D

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/760,027	FOURNIER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Hai Vo	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 5-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. The claim objections and the 112 claim rejections are withdrawn in view of the present amendment.
2. All of the art rejections are maintained.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cundiff (US 5,569,508) in view of Weinand et al (US 4,569,884) substantially as set forth in the 04/04/2005 Office Action. The art rejections have been maintained for the following reasons. Applicant argues that Cundiff is improperly combinable with Weinand because both Cundiff and Weinand are related to different ways of manufacturing a sandwich panel. One looking to improve use the RTM technique would not look to disclosure related to the draping technique. The arguments are not found persuasive for patentability because they are irrelevant to the article claims. The arguments are not found persuasive to overcome the art rejections because Applicant fails to show that addition of the barrier fabric between the honeycomb core and the skin would defeat the principle of operation disclosed by Cundiff. It is recognized that nothing in the Cundiff reference teaches or suggests that the use of the fabric layer between the honeycomb core and the fiber overlay would interfere with the RTM technique of making the sandwich panel disclosed in

the Cundiff invention. Applicant argues that the combined teachings of the cited references do not arrive at the sandwich panel wherein the fabric layer interposed between the core and the fiber overlay is to prevent the intumescent material from entering the overlay of dry fibers. In response to applicant's argument that the motivation to combine Cundiff and Weinand is not the same as the motivation disclosed in the present invention, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). However, the combined teachings of the prior art references result in the sandwich panel having the structure as recited by the claims. Applicant further argues that Weinand does not teach or suggest the barrier fabric and fiber overlay. The examiner disagrees. Weinand teaches a composite structure having a layer construction in the order as follows: two layers of phenolic prepreg, a fabric layer of polyamide, a honeycomb core, a fabric layer of polyamide and two layers of phenolic prepreg (column 2, lines 59-60, column 3, line 65 et seq.). Weinand discloses the impregnating phenolic resin at least partially flows around the filaments of the polyamide fabric layer (column 2, lines 6-8). Weinand does not need to teach the foam material because such issues already addressed in the Cundiff reference. Accordingly, Cundiff is properly combinable with Weinand.

Applicant requests the fact or the evidence be provided to show that one of ordinary skill in the art would have found it obvious to partially fill the honeycomb

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core with the foam in a manner to arrive at claimed sandwich panel recited by claim

6. Applicant's attention is directed to Gorges (US 4,557,961). The prior art evidences that a fire resistant panel made of a composite material comprises a honeycomb core having a foam filler either throughout all of the cells or throughout only a localized region of the cells to provide the panel with appreciable heat and sound insulation (column 7, lines 15-25).

5. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cundiff (US 5,569,508) in view of Hartz et al (US 5,604,010) substantially as set forth in the 04/04/2005 Office Action. The art rejections have been maintained for the following reasons. Applicant argues that one of skill in the art using the RTM technique would not look to Hartz nor combine Hartz with Cundiff since the barrier fabric must be able to be wet by resin. The examiner disagrees. Hartz teaches a composite structure comprising an open cell honeycomb core isolated from the resin by a polyamide barrier layer (figure 2). Hartz discloses the polyamide barrier layer acts as a resin impermeable membrane between the skin and the core (column 3, lines 49-50). Hartz does not positively teach or disclose that the barrier layer must be dried or not be impregnated by the resin. Further, it appears that Hartz uses the same materials to form the barrier fabric and the impregnating resin as Applicant. Therefore, it is not seen that the barrier fabric could not be wet by the impregnating resin as the same materials are employed. Like material has like property. This is in line with *In re Spada*, 15 USPQ 2d 1655 (1990) which holds that products of identical chemical composition can not have mutually exclusive properties.

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6. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weinand et al (US 4,569,884) and Gorges (US 4,557,961) substantially as set forth in the 04/04/2005 Office Action. Applicant's reiterated positions taken with respect to the other rejections, the examiner's comments set forth above are equally pertinent in the support of these rejections as well. Applicant argues that Gorges does not disclose the use of a barrier fabric. Gorges does not need to teach the issues because they have been disclosed in the Weinand reference. Weinand teaches a fire resistant composite structure comprising two layers of phenolic prepreg, a fabric layer of polyamide, a honeycomb core, a fabric layer of polyamide and two layers of phenolic prepreg (column 2, lines 59-60, column 3, line 65 et seq.). Weinand teaches that the fabric layer is also impregnated with the phenolic resin (column 2, lines 5-10). Weinand does not specifically disclose the cells of the core filled with a foam. Gorges discloses a fire resistant panel made of a composite material comprising a honeycomb core having a foam filler either throughout all of the cells or throughout only a localized region of the cells to provide the panel with appreciable heat and sound insulation (column 7, lines 15-25). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to partially fill the cells of the honeycomb core with the foam in a manner as recited in the claims motivated by the desire to provide the panel with appreciable heat and sound insulation. It is believed that the motivation to combine the two cited references is strong and sufficient to establish the *prima facie* case of obviousness. Therefore, the art rejections are thus sustained.

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on M,T,Th, F, 7:00-4:30 and on alternating Wednesdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for


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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HV



**HAI VO  
PRIMARY EXAMINER**